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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,910	08/18/2003	David A. Cathey	4250.1US (97-0357.01/US)	3191
24247	7590	05/05/2006	EXAMINER	
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110			LEE, BENJAMIN C	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/642,910	CATHEY, DAVID A.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Benjamin C. Lee	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                                      |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                          | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/18/03, 2/5/04</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### Claim Status

1. Claims 1-23 are pending.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Lastinger (US pat. #6,104,311).

1) Regarding claim 1, Lastinger discloses the claimed:

--a radio frequency communication device (RFID tag/transponder according to Figs. 2, 6 and 14; col. 1, lines 21-61; col. 6, line 31 and col. 7 lines 26-31) comprising: internal circuitry (26); at least one antenna (24) coupled to the internal circuitry; and at least one antenna segment

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coupled to the at least one antenna by a fuse (Figs. 6 and 14 each shows antenna 24 comprising plural segments parallel or serially connected by fuses 30 to form the final antenna.)

2) Regarding claim 2, Lastinger discloses all of the claimed subject matter as in claim 1, including: the claimed plurality of antenna segments coupled by fuses (30) in series with the at least one antenna segment (Fig. 14.)

3) Regarding claim 3, Lastinger discloses all of the claimed subject matter as in claim 1, including: the claimed wherein the at least one antenna segment comprises a plurality of antenna segments, each coupled to the at least one antenna in parallel (Fig. 6) by a fuse (30).

4) Regarding claim 4, Lastinger discloses all of the claimed subject matter as in claim 1, including: the claimed wherein the at least one antenna comprises at least two antennas (Fig. 2 showing RFID tag that uses 2 antennas), each coupled to at least one antenna segment by a fuse (Fig. 14, whereby col. 10, lines 1-5 indicated that the embodiment of Figs. 2 and 14 are combinable: “The selectable connections NEED NOT be ONLY between the code circuits and the antennas...”)

5) Regarding claim 5, Lastinger discloses all of the claimed subject matter as in claim 1, including: the claimed wherein the radio frequency communication device is a radio frequency identification tag (col. 6, line 31).

6) Regarding claim 6, Lastinger discloses all of the claimed subject matter as in claim 1, including: the claimed wherein the internal circuitry comprises at least one of a sleep circuit, a wake-up circuit, a receiver, a transmitter, control logic, memory and at least one battery (col. 1, lines 5-61 which discloses receiver on line 18, transmitter on line 20, memory on line 37, control logic on line 59.)

7) Regarding claim 7, Lastinger discloses all of the claimed subject matter as in claim 1, including: the claimed further comprising at least one other antenna segment associated with the at least one antenna through an antifuse (col. 6, lines 52-55; col. 10, lines 1-11, whereby 30 to be “filled in” as defined constitutes a fuse and 30 to be “punched through” as defined constitutes an antifuse with respect to the plural antenna segments and antenna.)

8) Regarding claim 8, Lastinger discloses all of the claimed subject matter as in claim 7, including: the claimed comprising a plurality of other antenna segments associated in series with the at least one antenna segment and connected through a plurality of antifuses (Fig. 14 and col. 10, lines 1-11.)

9) Regarding claim 9, Lastinger discloses all of the claimed subject matter as in claim 7, including: the claimed wherein the at least one other antenna segment comprises a plurality of antenna segments each associated with the at least one antenna in parallel through an antifuse (Fig. 6 and “antifuse” considered in claim 7.)

10) Regarding claim 10, Lastinger met all of the claimed subject matter as in the consideration of claims 1 and 7.

11) Regarding claim 11, Lastinger discloses all of the claimed subject matter as in claim 10, including: the claimed further comprising a plurality of antenna segments associated in series with the at least one antenna segment through a plurality of antifuses (Fig. 14 and col. 10, lines 1-11; consideration of claim 8.)

12) Regarding claim 12, Lastinger discloses all of the claimed subject matter as in claim 10, including: the claimed wherein the at least one antenna segment comprises a plurality of

antenna segments, each associated with the at least one antenna in parallel through an antifuse (Fig. 6 as considered in claim 9.)

13) Regarding claim 13, Lastinger discloses all of the claimed subject matter as in claim 10, including: the claimed wherein the at least one antenna comprises at least two antennas, each associated with at least one antenna segment through an antifuse (as considered in claim 4.)

14) Regarding claim 14, Lastinger discloses all of the claimed subject matter as in claim 10, including: the claimed wherein the radio frequency communication device is a radio frequency identification tag (as considered in claim 5.)

15) Regarding claim 15, Lastinger discloses all of the claimed subject matter as in claim 10, including: the claimed wherein the internal circuitry comprises at least one of a sleep circuit, a wake-up circuit, a receiver, a transmitter, control logic, memory and at least one battery (as considered in claim 6.)

16) Regarding claims 16-17, Lastinger met of the claimed subject matter, including: the claimed radio frequency communication system comprising at least one of a transmitter, a receiver, a processor, an input device, an output device, data storage, and memory (inherent of the reader/interrogator for communicating with the RFID tag), the system further comprising at least one radio frequency identification tag associated therewith, the radio frequency identification tag comprising internal circuitry coupled to an antenna, the antenna including at least one antenna segment associated therewith through at least one of a fuse and an antifuse, wherein the antenna includes at least one antenna segment associated therewith through each of the fuse and the antifuse (as considered in claims 5 and 7.)

17) Regarding claim 18, Lastinger discloses all of the claimed subject matter as in claim 16, including: the claimed wherein the at least one antenna segment is associated with the antenna in series (as considered in claim 8.)

18) Regarding claim 19, Lastinger discloses all of the claimed subject matter as in claim 16, including: the claimed wherein the at least one antenna segment is associated with the antenna in parallel (as considered in claim 9.)

19) Regarding claim 20, Lastinger discloses all of the claimed subject matter as in claim 16, including: the claimed wherein the at least one antenna segment comprises a plurality of antenna segments coupled in series by a plurality of fuses (as considered in claim 2.)

20) Regarding claim 21, Lastinger discloses all of the claimed subject matter as in claim 16, including: the claimed wherein the at least one antenna segment comprises a plurality of antenna segments associated in series through a plurality of antifuses (as considered in claim 11.)

21) Regarding claim 22, Lastinger discloses all of the claimed subject matter, including: the claimed method of forming an antenna for a radio frequency communication device, the method comprising: forming an antenna and a plurality of antenna segments on a substrate (col. 3, line 52); and associating the plurality of antenna segments in series or in parallel with the antenna by forming at least one of a fuse and an antifuse there-between (as considered in claim 7 or claim 16.)

22) Regarding claim 23, Lastinger discloses all of the claimed subject matter as in claim 22, including: the claimed wherein forming the antenna and the antenna segments on the substrate comprises forming the antenna and the antenna segments on a semiconductor substrate (col. 3, lines 47-53, whereby the whole tag including the antenna having antenna segments and

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the RFID tag circuitry are formed on the substrate, and since the substrate supports RFID tag circuitry which typically and inherently include IC or integrated circuit semiconductor circuit components, the substrate constitutes a semiconductor substrate.)

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Tuttle et al., US pat. #6,045,652

--A known RFID tag with alternative use of loop and dipole antennas, and use of claimed internal circuitry components.

2) US patents 5579017, 3955201, 5187488, 4924238

--Similar antennas with adjustment/tuning features.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin C. Lee whose telephone number is (571) 272-2963.


The examiner can normally be reached on Mon -Thu 11:00Am-7:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Benjamin C. Lee  
Primary Examiner  
Art Unit 2612

B.L.